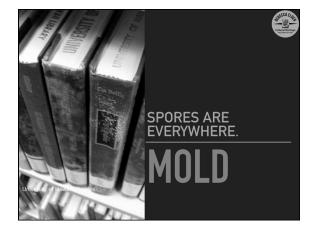


DEALING WITH BIOLOGICAL AGENTS OF DETERIORATION
CRITTERS AND SLIME

ON TODAY'S AGENDA

- ▶ Mold
- Pests
- ▶ Housekeeping





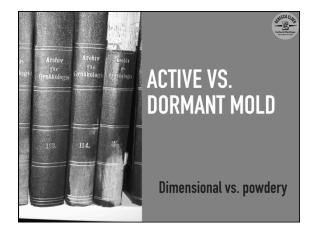
MOLD FACTS

- There are over 100,000 known species of mold and mildew.
- Mold grows on any organic material, including paper, adhesives, leather, dust and dirt.
- Many molds contain substances that can stain paper, cloth or leather.



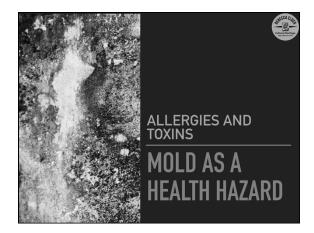
MOLD GROWS WHEN RH IS GREATER THAN 65% FOR MORE THAN 72 HOURS. MOLD GROWS FASTER WHEN TEMPERATURE IS WARM.

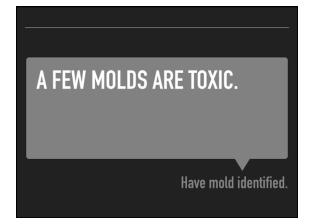
All mold problems are environmental problems.



ASSUME MOLD IS ACTIVE. When in doubt

WAYS TO MINIMIZE POTENTIAL FOR MOLD • Keep your temperature and rH low. • Ensure adequate air circulation. • Do not place shelving directly against outside walls. • Do not allow plants in collection areas. • Inspect regularly for signs of mold. • Check donated materials for mold.





OTHER HEALTH HAZARDS

- ▶ Mold is an allergen
- $\,\blacktriangleright\,$ Even if you are not allergic to mold, you can develop allergies after exposure.
- ▶ Prolonged exposure to germinating molds can permanently damage
 - ▶ lungs
- ▶ mucous membranes
- ▶ cornea
- ▶ respiratory tract
- stomachintestines
- ▶ skin.

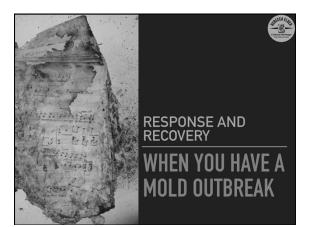




OTHER PROTECTIVE GEAR

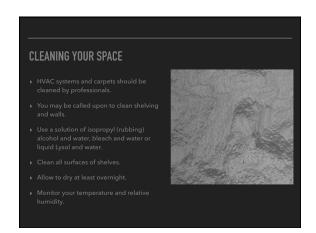
- Always wear nitrile gloves when handling moldy materials.
- Cover your hair with a shower cap
- Wear clothing you can take off immediately and wash in hot water with bleach.
- ▶ Consider protective eyewear.
- Throw disposable gear away at the





LOCATE THE SOURCE OF RELATIVE HUMIDITY...

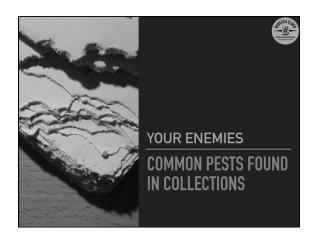


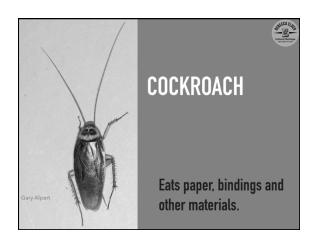






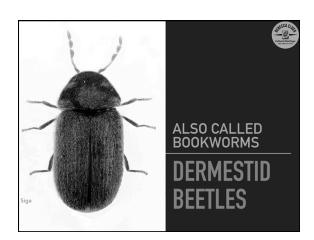
PEST DAMAGE: A BRIEF REVIEW Insects like dark, small, spaces. Rodents like environments that are dark, wet, dirty, cluttered and undisturbed. Pests are attracted to food, trash, water and cardboard boxes. Pests are more attracted to sizing, adhesives and starches than paper. Damage is caused by eating, tunneling, nesting and body secretions. Clemson University USDA Cooperative Extension Slide.















BLOCK ROUTES OF ENTRY

- Seal windows and doors
- ▶ Do not prop open doors
- Seal openings around pipes
- ▶ Repair cracks in walls
- Screen all vents
- Do not allow plantings to touch the building



KEEP YOUR TEMPERATURE AND RH LOW.

A bonus: This slows deterioration.



GOOD HOUSEKEEPING IS KEY

- ▶ Clean floors at least weekly.
- ▶ Clean stacks as often as required to keep them dust free.
- ▶ Replace filters in your HVAC system as needed.
- No food or drink in collections areas.
- ▶ Locate trash cans outside of collection areas.
- Do not save corrugated cardboard boxes



MONITORING FOR PESTS Identify possible draws for insects on a floor plan. Look for likely routes and mark where you will place traps. Put traps in place. Don't forget to date them. Inspect regularly, recording what is found on each trap. If no insects are found, relocate the traps.





ANOXIC TREATMENT Anoxic treatment deprives insects of oxygen. Place materials in airtight bags. Include oxygen scavenger packets in the bags. The scavengers will bond to all of the oxygen, choking the insects to death.

QUARANTINE DONATIONS

- Do not allow donated collections near your storage until you know they are pest free
- Immediately remove donations from packing materials and inspect packing for evidence of infestation.
- Also inspect donations themselves.
- Quarantine for at least 72 hours, or until inspection is done, whichever comes last.
- Talk with a conservator about evidence of infestation.



DAMAGE FROM BIOLOGICAL AGENTS IS QUICK, CATASTROPHIC AND IRREVERSIBLE.

Prevent infestations instead of treating them.

RESOURCES

- MuseumPests net
- ▶ National Park Service Conserve-o-Grams
- ▶ NEDCC Preservation Leaflets
- National Park Service Museum Handbook
- AIC Health and Safety Wik



'HANK YOU!	
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THC Museum Services	
▶ Laura Casey	*
(laura.casey@thc.state.tx.us)	TEXAS HISTORICAL COMMISSION real places telling real stories
▶ Tricia Blakistone	